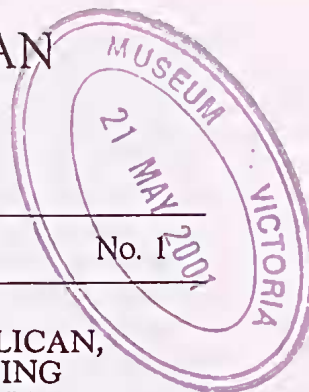


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HISTORIC RECORD OF AUSTRALIAN PELICAN, *PELECANUS CONSPICILLATUS*, BREEDING IN SOUTHWEST WESTERN AUSTRALIA

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Johnstone and Storr (1998) listed six islands south of the tropic in Western Australia upon which the Australian Pelican has been recorded breeding, noting that this species no longer breeds on three of them. In 1985, nesting by pelicans was first recorded on Green Island in Oyster Harbour near Albany (Johnstone and Storr 1998). About 20-50 disused pelican nests, one dead chick, and some old addled eggs were found in January 1988 on a flat sandy area on the highest part of the island (R. Johnstone, pers. comm.).

The purpose of this note is to draw attention to an 1826 record of nesting by pelicans on Green Island, Oyster Harbour; to consider why nesting was not recorded earlier; and to note the circumstances of the extinction of this population. Although the 1826 record was noted by Alexander (1916) and Whittell (1954), it was overlooked by Serventy *et al.* (1971), Serventy and

Whittell (1976), Abbott (1978), and Johnstone and Storr (1998).

Jules Dumont d'Urville, Captain of the French corvette *Astrolabe*, visited Green Island (which he called Garden Island) on 7 October 1826. As the island was approached, a flock of c. 30-40 pelicans flew off and about a dozen young pelicans were found on the island. These were collected for food (Rosenman 1987, p. 27). Jean-René Quoy, zoologist, mentioned that these young pelicans 'could not yet fly' (Rosenman 1987, p. 48).

When combined with data taken from Marchant and Higgins (1990, p. 745) on incubation period (c. 30 days), period before young leave the nest (25 days) and period before young can fly (c. 90 days), the information recorded by d'Urville and Quoy indicates that egg laying commenced in June or July.

Green Island, like other islands of southwest Western Australia, was inaccessible to Aborigines owing to

their lack of watercraft and unwillingness to swim (see, for example, Wilson 1835, p. 283). Several early visitors to the region noted the shyness of pelicans, evidenced by their keeping out of shooting range (see Rosenman 1987, pp. 32–3; Clark 1994, p. 87). This suggests that pelicans venturing too close to the mainland risked being speared by aborigines.

King George Sound from its discovery by Europeans in 1791 until settlement in 1826 was an important landfall after a long voyage from Capetown or Sydney, being a valuable source of firewood and water. Prior to the 1826 visit, Green Island was visited on five occasions by expeditions whose members were observant enough to record relevant biological information (Table 1), yet none recorded pelicans nesting there. The reason may be that most visitors either arrived after young would have fledged or before nesting would have commenced. Vancouver and Menzies, however, did visit Green Island at the appropriate time but did not record nesting; this may indicate either that nesting by pelicans did not take place there every year or that breeding had been completed. Vancouver mentions pelicans 'seen at a distance' only (Lamb 1984, p. 352).

The above reasoning presumes that Australian Pelicans have a fixed breeding season. This is not necessarily so. In the nearest breeding area to Green Island – several islets in Peel Inlet near Mandurah – nesting (eggs) has been observed or inferred from November to April inclusive (Singor 1996) and in August, September and November (Lane *et al.* 1997). Young birds have been recorded there in the period from January to April inclusive (Singor 1996) and in April and October (Lane *et al.* 1997). If pelicans had

nested on Green Island at these times, they should have been detected by the Flinders, Baudin or King expeditions.

Although all obvious sources have been searched, I did not find evidence of visits to Green Island by Good in the period 8 December 1801–4 January 1802 (Edwards 1981), Von Hügel in the period 1–11 January 1834 (Clark 1994), Fitzroy and Darwin in the period 6–14 March 1836 (Fitzroy 1839, Darwin 1839), Grey in the period September 1839–March 1840 (Grey 1841), Stokes in the period 2–15 November 1840 (Stokes 1846), Eyre in July 1841 (Eyre 1845), or Wollaston in the period 1848–56 (Burton and Henn 1954). The next recorded visits come from 1974, 1975, 1976 and 1977 (Abbott 1978). It is possible that Green Island continued to supplement occasionally the supply of vegetables to settlers at Albany as late as 1840, as Grey when appointed Government Resident in 1839 remarked that 'the population had been in a state bordering upon want' (Grey 1841, p. 197).

It is clear from the foregoing that pelicans ceased using Green Island for nesting in 1826. Adults still frequented the region, however, as they were recorded in Oyster Harbour and the Kalgan River in 1827 (Lockyer 1827, pp. 489, 495). In November 1830 Barker recorded a flock of 37 pelicans near the confluence of the Kalgan River with Oyster Harbour (Mulvaney and Green 1992, p. 352), and in January 1834 Von Hügel noted 'a large number' of pelicans on sandbanks near the entrance to the Kalgan River (Clark 1994, p. 87). The arrival of the English a few months after d'Urville's visit and their appropriation of Green Island as a vegetable garden (Table 1) clearly prevented pelicans from re-commencing to nest on the island. Although the

Table 1. Summary of relevant details recorded about Green Island in the period 1791 to 1833.

EXPEDITION/VISITOR AND PERIOD AT KING GEORGE SOUND	RELEVANT BIOLOGICAL INFORMATION PROVIDED ABOUT GREEN ISLAND	REFERENCE
Vancouver 27 September – 11 October 1791	Verdant; covered with 'the most beautiful herbage', luxuriant grasses and other vegetables [plants]. Vine cuttings and watercresses planted, and an assortment of garden seeds, with some almond, orange, lemon and pumpkin seeds sown.	Lamb 1984, vol. 1, pp. 337, 338, 352
Menzies 27 September – 11 October 1791	'...wholly covered with rank grass particularly a species of <u>Bromus</u> that reached up to our middles as we walked through it, & no doubt owed its luxuriance in a great measure to the manure left by birds and marine mammals which frequent the island'.	Menzies 1791, folio 44
Flinders 8 December 1801 – 5 January 1802	Tufts of wiry grass and a few stunted shrubs. Sandy soil perforated with rat holes [Fleshy-footed shearwaters]. No sign of Vancouver's plantings.	Flinders 1814, vol. 1, p. 55
Baudin and Freycinet 13 February – 1 March 1803	Two or three patches of scrub; mostly covered by yellow grass. No sign of Vancouver's plantings, possibly because the many large ants present had destroyed the seed.	Péron & Freycinet 1816, vol. 2, p. 149; Cornell 1974, p. 486
King 20 January – 1 February 1818	No sign of Vancouver's plantings.	King 1827, vol. 1, p. 15
Cunningham 20 January – 1 February 1818	No traces of any plants originating from seed sown by Vancouver. '...the Island in many parts abounds with Rats, who might have long since destroy'd every esculent plant, thus raised, and whose...perforations, holes...render walking difficult upon it.' Rhagodia abounds. Island 'offers many retreats among its wiry grass to numerous Sea fowl.' Many seabirds pass the night on this island [late afternoon visit]	Cunningham 1818, folio 230–1 (21 January) [NB: Handwriting in places difficult to decipher]. Folio 235 (27 January)
King 23 December 1821 – 6 January 1822	A few parakeets [?Rock parrots] and waterbirds shot.	King 1827, vol. 2, p. 130

EXPEDITION/VISITOR AND PERIOD AT KING GEORGE SOUND	RELEVANT BIOLOGICAL INFORMATION PROVIDED ABOUT GREEN ISLAND	REFERENCE
d'Urville 7-25 October 1826	Island stands out picturesquely like a fresh verdant flower garden. Covered by mallow bushes and coarse grass. Several seabirds killed. See also text of this paper. Oystercatchers and swallows present.	Rosenman 1987, p. 27
Lockyer 25 December 1826 - 3 April 1827	Corpse of Aboriginal man found, murdered by sealers. This Island would make an excellent Vegetable Garden... [and] place to put Incorrigibles for punishment' (28 January). One pair of Cape Barren geese present (4 February). Landed for breakfast and allowed the men to catch as many mutton birds as they could eat, 3 dozen (12 February).	Lockyer 1827, pp. 466-7, 469, 473-4, 479, 484, 493-4
Tallemach ?25 December 1826 - ?	Soil for settlement garden at Princess Royal Harbour obtained from the islands (October 1827).	Tallemach 1827, p. 516
Wakefield 25 December 1826 - 6 December 1828	Cabbages planted and lettuce seeds sown. Soil shallow but 'very good' (August 1827). 'Green Island is also commencing to be of great service to us' (January 1828).	Wakefield 1827, p. 513; Wakefield 1828, p. 517
Sleeman 6 December 1828 - 3 December 1829	'...from which we get our vegetables...' (July 1829).	Sleeman 1829, pp. 540-1
Nind 25 December 1826 - October 1829	Most productive site for cultivation of vegetables for settlement.	Nind 1831, p. 23
Wilson 29 November - 20 December 1829	Turnips, carrots, peas, potatoes, cabbages and other culinary vegetables growing in abundance. Soil light. None of Vancouver's plantings found. Collected vegetables grown by the gardener in residence.	Wilson 1835, pp. 276, 279.
Barker 3 December 1829 - 26 March 1831	Hut constructed (May 1830). 'Little vegetation except weeds which have got pretty thick in the gardener's absence'. 'Plenty of ducks etc at the island' (May 1830). 'Plants beginning to look well but the hail storm has thrown them back & also a blight upwards of 2,000 Swedes & cabbages having been destroyed	Mulvaney & Green 1992, pp. 294-5, 298, 307, 315, 324, 342, 352, 357, 368, 379, 389, 399.

EXPEDITION/VISITOR AND PERIOD AT KING GEORGESOUND	RELEVANT BIOLOGICAL INFORMATION PROVIDED ABOUT GREEN ISLAND	REFERENCE
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since the gardener returned. Potatoes do not thrive' (May 1830). 'To the island which now justifies its name of Green' (June 1830). 'Potatoes cut up but other things doing well' (July 1830). 'obliged to cut vegetables at island, running to seed' (August 1830). 'To the island where things are improving' (October 1830). 'no general supply of vegetables yet' (November 1830). 'Boat to island brought back tolerable supply of Cabbages & Turnips' (November 1830). Two bags of potatoes from the island' (January 1831). 'Tasting some of the fruit of the Mesembryanthemum [*Carpobrotus virescens*] at the island today" (January 1831). 'To the island & brought away the gardener. It is full time' [island abandoned as a garden, 11 February 1831]. Pet kangaroo kept on island (7 December 1830 – 1 February 1831).

Moore 20–26 February 1833	Grapes, cabbages etc growing wild. Island no longer cultivated.	Moore 1884, p. 163
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island ceased to be used as a garden in 1831 (Table 1), the next 150 years was an era when large, conspicuous animals were killed for the larder or for sport. Such activities presumably obstructed any attempt to nest on the island.

Serventy and Whittell (1976, p. 108) mention nesting colonies of pelicans initiated in 1962 on two islands in Peel Inlet. By analogy with Green Island, it would be useful to search early colonial documents relating to Peel Inlet for any evidence of nesting there by pelicans in the early days of European settlement.

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